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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,408	08/27/2001	Hideki Noma	450108-02925	4273

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EXAMINER

PALADINI, ALBERT WILLIAM

ART UNIT PAPER NUMBER

2125

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/914,408

Applicant(s)

NOMA, HIDEKI

Examiner

Albert W. Paladini

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 and 31-44 is/are allowed.
- 6) ☒ Claim(s) 15-17, 19-25, 27-30, 45-47, 49-55 and 57-60 is/are rejected.
- 7) ☒ Claim(s) 18, 26, 48 and 56 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/27/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15-17, 19-25, 27-30, 45-47, 49-55, and 57-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishii (JP362212705A).

In figure 2, Ishii discloses a system for diagnosing any type of robot, which includes a measuring device 206, connected by line 200 to robot diagnosing devices 101, 102, and 200.

3. Claims 15-17, 19-25, 27-30, 45-47, 49-55, and 57-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchihashi (5715388).

Referring to figure 1, Tsuchihashi discloses a man machine sub-system 3 on lines 29-48 in paragraph 7 for detecting and displaying the occurrence of an abnormality in the robot.

***Allowable Subject Matter***

4. Claims 1-14 and 31-44 are allowed.

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5. Claims 18, 26, 48, and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

None of the references cited or the art searched disclose or teach alone or in combination the diagnostic system with the first communication means on the user side of a robot apparatus, the second communication means on the service side, the communication line for connecting the two communication means whereby the first communication means transmits data for diagnosing the robot's hardware and software, and the second communications means analyzes the data obtained from the first communications means as recited in claims 1, 31, and 38.

None of the references cited or the art searched disclose or teach alone or in combination the diagnostic system with the transition probability model which models the transition of generating actions and behaviors of the robot apparatus as recited in claims 18, 26, 48, and 56.

***Relevant Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Evans (4362977) discloses a method and system for analyzing a robot to access faults and deterioration, and for calibrating the robot to compensate for its behavioral changes over time.

Wakui (6896078) discloses a movable robot, which includes a self-diagnostic section to detect abnormalities in the robotic system.


Mukoda (JP404047412) disclosed a work robot-supporting device, which have a self-diagnosis apparatus to diagnose and determine any abnormality and display it for the user.

Echizenya (JP407311618A) discloses a robot program diagnosis device, which sends and receives signals to and from external equipment and diagnoses problems, which inhibit proper robot operation.

8. Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (571) 272-3748. The examiner can normally be reached from 7:00 to 3:00 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (571) 272-3749. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Albert W. Paladini  
Primary Examiner  
Art Unit 2125

September 6, 2005

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